

Application No.: 10/620,865

2

Docket No.: 245402006600

AMENDMENTS TO THE CLAIMS

Claims 1-10 (Cancelled)

Claim 11 (currently amended): A nitride semiconductor laser apparatus comprising a nitride semiconductor laser device chip [[and]], a support member for placing said chip thereon, and a solder for joining said laser device chip to said support member, wherein:

said chip has a nitride semiconductor stacked-layered structure of a hexagonal crystal system including an n-type layer, an active layer and a p-type layer successively stacked on a first main surface of a nitride semiconductor substrate of the same hexagonal crystal system and has a ridge stripe structure formed in a portion of said p-type layer;

said chip has a length L1 of more than 500 μm in a longitudinal direction of said stripe structure and a length L2 of more than 200 μm in a width direction of said stripe structure, and L1/L2 is more than 2.5; [[and]]

a total thickness of said nitride semiconductor substrate and said nitride semiconductor stacked-layered structure is more than 50 μm and less than 200 μm [[.]];

a multilayer metal film including an outermost layer of Au is formed on said nitride semiconductor laser device chip;

said outermost layer of Au is bonded to said support member with said solder; and

said solder includes one of AuSn, AgSn, AuGe, PbSn, InSn, and AgCuSn.

Claim 12 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein said stripe structure is formed at a position more than 10 μm away in the width direction of said stripe structure from an edge of said chip.

Claim 13 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein said support member has a larger thermal expansion coefficient as compared to said nitride

pa-1033355

Application No.: 10/620,865

3

Docket No.: 245402006600

semiconductor substrate.

- Claim 14 (previously presented): The nitride semiconductor laser apparatus of claim 11,
- wherein said support member includes one of Al, Ag, Cu, Au, Fe, Al-SiC, CuW and BeO.

Claim 15 (cancelled)

Claim 16 (currently amended): The nitride semiconductor laser apparatus of claim 11
[[15]], wherein:

a multilayer metal film including an outermost layer of Au is formed on a second main surface of the nitride semiconductor substrate opposite said first main surface; and
said outermost layer of Au is connected to said support member of by said solder.

Claim 17 (currently amended): The nitride semiconductor laser apparatus of claim 11
[[15]], wherein:

a multilayer metal film including an outermost layer of Au is formed on said nitride semiconductor stacked-layer structure; and
said outermost layer of Au is connected to said support member by said solder.

pa-1033355